WEST Search History

DATE: Monday, March 18, 2002

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR			
L7	l6 same ((silicon adj1 carbide) or SiC!)	1	L7
L6	solid adj1 state adj1 grow$6	59	L6
L5	l4 same ((silicon adj1 carbide) or SiC!)	0	L5
L4	solid adj1 state adj1 (anneal$4 or crystal$7)	317	L4
L3	l1 same ((silicon adj1 carbide) or SiC!)	2	L3
L2	l1 same ((silicon adj1 carbide) or SiC!)	2	L2
L1	solid adj1 phase adj1 (anneal$4 or crystal$7)	293	L1

END OF SEARCH HISTORY

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     (FILE 'HOME' ENTERED AT 12:52:29 ON 18 MAR 2002)

     FILE 'CAPLUS' ENTERED AT 12:52:45 ON 18 MAR 2002
L1          1707 S SOLID (1W) (STATE OR PHASE) (1W) (GROW? OR ANNEAL? OR CRYSTAL
L2            19 S L1 AND ((SILICON (1W) CARBIDE) OR SIC)
L3           128 S RECRYSTAL? (2A) ((SILICON (1W) CARBIDE) OR SIC)
L4            36 S L3 AND (ANNEAL? OR SOLID OR (HEAT (1W) TREAT?))
L5            36 S L4 NOT L2

     FILE 'INSPEC' ENTERED AT 13:08:27 ON 18 MAR 2002
L6            54 S L2

     FILE 'STNGUIDE' ENTERED AT 13:17:23 ON 18 MAR 2002

     FILE 'INSPEC' ENTERED AT 13:18:27 ON 18 MAR 2002
L7            25 S L4
L8            22 S L7 NOT L6

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(thermal; defect-free silicon carbide single crystal and its growth by hot CVD and **annealing**)

IT 409-21-2P, Silicon carbide, properties
RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(defect-free silicon carbide single crystal and its growth by hot CVD and **annealing**)

L5 ANSWER 33 OF 36 CAPLUS COPYRIGHT 2002 ACS
AN 1976:97937 CAPLUS
DN 84:97937
TI Study of **recrystallization** of **silicon carbide** thin films
AU Dubey, Madan
CS Dep. Phys., Banaras Hindu Univ., Banaras, India
SO Mater. Res. Bull. (1976), 11(2), 197-202
CODEN: MRBUAC
DT Journal
LA English
CC 75-1 (Crystallization and Crystal Structure)
AB Thin films of SiC were prepd. by electron beam evapn. by using 6H, 15R, 4H and other polytypes as starting materials. After pulse-**annealing** in electron microscope column, various complex structures of hexagonal and cubic phases are obsd. The occurrence of 6H as single phase is rare.
ST silicon carbide polytype film; **annealing** silicon carbide polytype
IT Polytypism
(of silicon carbide films, effect of **annealing** on)
IT 409-21-2, properties
RL: PRP (Properties)
(film deposition and polytypism of, effect of **annealing** on)

L5 ANSWER 34 OF 36 CAPLUS COPYRIGHT 2002 ACS
AN 1974:469422 CAPLUS
DN 81:69422
TI **Recrystallization** of **silicon carbide** thin films
AU Dubey, Madan; Singh, Govind
CS Dep. Phys., Banaras Hindu Univ., Banaras, India
SO J. Phys. D (1974), 7(11), 1482-4
CODEN: JPAPBE
DT Journal
LA English
CC 70-1 (Crystallization and Crystal Structure)
AB Thin films of SiC were prepd. by electron-beam evapn. By being pulse-**annealed** in the electron microscope, as-deposited noncryst. films recrystallize and grow, first in polycryst. 2H and 3C phases and subsequently into syntactic 2H and 3C single crystals.
ST silicon carbide film crystn
IT Crystallization
(of silicon carbide thin films)
IT 409-21-2, properties
RL: PRP (Properties)
(crystn. of thin films of)

SWER 6 OF 36 CAPLUS COPYRIGHT 2002 ACS
AN 1999:345726 CAPLUS
DN 130:359608
TI Silicon carbide single crystal with minimized defects and impurities and its growth by CVD and **annealing**
IN Tanino, Yoshiya; Hiramoto, Masanobu
PA Nippon Pillar Packing Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C30B029-36
ICS C30B025-18
CC 75-1 (Crystallography and Liquid Crystals)
Section cross-reference(s): 73
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11147795	A2	19990602	JP 1997-315127	19971117
	JP 3043690	B2	20000522		
	TW 416998	B	20010101	TW 1998-87117866	19981028
	EP 916749	A1	19990519	EP 1998-121098	19981106
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 6203772	B1	20010320	US 1998-186662	19981106
	RU 2154698	C2	20000820	RU 1998-121013	19981116
PRAI	JP 1997-315127	A	19971117		

AB The process comprises these steps; depositing a polycryst. .alpha.- or .beta.-SiC film on an .alpha.-SiC substrate thermochem., polishing the surface of the deposition film, contacting a pair of the composite from the deposition-film side so that the crystal axis in the two film might be in the same direction, and **annealing** to **recrystallize** the polycryst. **SiC** and to grow single crystals oriented in the same direction to the crystal axis in the substrate. The single crystal is useful for LED and lasers.
ST CVD silicon carbide recrystn **annealing**; defect free silicon carbide crystal LED
IT Chemical vapor deposition
(hot; manuf. of defect-free silicon carbide single crystal by hot CVD and **annealing**)
IT **Annealing**
Recrystallization
(manuf. of defect-free silicon carbide single crystal by hot CVD and **annealing**)
IT 409-21-2P, Silicon carbide, properties
RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(.alpha.-; manuf. of defect-free silicon carbide single crystal by hot CVD and **annealing**)

L5 ANSWER 7 OF 36 CAPLUS COPYRIGHT 2002 ACS
AN 1999:345724 CAPLUS
DN 130:359606
TI Defect-free silicon carbide single crystal and its growth by hot CVD and **annealing**
IN Tanino, Yoshiya
PA Nippon Pillar Packing Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C30B029-36
ICS C30B025-18
CC 75-1 (Crystallography and Liquid Crystals)
Section cross-reference(s): 76
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11147793	A2	19990602	JP 1997-315125	19971117
	JP 3043688	B2	20000522		

AB The process comprises these steps; depositing an .alpha.-2H-SiC/.beta.-3C-SiC mixed layer on an .alpha.-SiC (I) single crystal support by thermochem. deposition and **annealing** the mixed layer to convert it into I and orienting crystal axis of the newly formed I in the same direction to that in the substrate. The resulted single crystal is useful for substrates of electronic devices and of LED.

ST defect free silicon carbide crystal growth; **annealing** crystal axis orientation silicon carbide; CVD **annealing** defect free silicon carbide

IT **Annealing**
Crystal defects
Recrystallization
(defect-free **silicon carbide** single crystal and its growth by hot CVD and **annealing**)

IT Chemical vapor deposition
(hot; defect-free silicon carbide single crystal and its growth by hot CVD and **annealing**)

IT Electric apparatus
(substrates; defect-free silicon carbide single crystal and its growth by hot CVD and **annealing**)

IT 409-21-2P, Silicon carbide, properties
RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(.alpha.; defect-free silicon carbide single crystal and its growth by hot CVD and **annealing**)

L5 ANSWER 8 OF 36 CAPLUS COPYRIGHT 2002 ACS
AN 1999:345723 CAPLUS
DN 130:359605
TI Defect-free silicon carbide single crystal and its growth by hot CVD and **annealing**
IN Tanino, Yoshiya
PA Nippon Pillar Packing Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C30B029-36
ICS C23C016-26; C30B001-02; H01L033-00
CC 75-1 (Crystallography and Liquid Crystals)
Section cross-reference(s): 76
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11147792	A2	19990602	JP 1997-315124	19971117
	JP 3043687	B2	20000522		

AB The process comprises these steps; depositing .alpha.-2H-SiC (I) layer on .alpha.-SiC (II) substrate by hot CVD and **annealing** the composite to convert I into II and orienting crystal axis of newly-formed II in the same direction to that in the substrate. The resulted SiC crystal is useful for substrates of LED and of electronic devices.

ST silicon carbide crystal defect free growth; CVD crystal conversion **annealing** silicon carbide

IT **Annealing**
Crystal defects
Recrystallization
(defect-free **silicon carbide** single crystal and its growth by hot CVD and **annealing**)

IT Electric apparatus
(substrates; defect-free silicon carbide single crystal and its growth by hot CVD and **annealing**)

IT Chemical vapor deposition